

# POLAR AIR TO WATER HEAT PUMP TECHNICAL SPECIFICATIONS

## Indoor Unit

Indoor unit model	DPIEH0080SD0B - DPIEH0100SD0B
Power supply	220-240V ~ 50Hz
Rated input	3100W
Rated Current	13.4A
Norminal capacity	Refer to the technical data
Dimensions(W×H×D)[mm]	420×790×270
Packing(W×H×D)[mm]	530×1035×355
Heat exchanger	Plate heat exchanger
Electric heater	/
Internal water volume	5.0L
Rated water pressure	0.3MPa
Filter mesh	60
Min. water flow (flow switch)	13L/min
<b>Pump</b>	
Type	DC inverter
Max. head	9m
Power input	5~90W
<b>Expansion vessel</b>	
Volume	8L
Max. operating pressure	0.3MPa(g)
Pre-charge pressure	0.10MPa(g)
<b>Weight</b>	
Net weight	38.5kg
Gross weight	43.5kg
<b>Connections</b>	
Refrigerant gas/liquid side	Φ15.9/Φ9.52
Water inlet/outlet	R1"
Drain connection	DN25
<b>Operation range</b>	
Outlet water(heating model)	+25 ~ +65°C
Outlet water(cooling model)	+5 ~ +20°C
Domestic hot water	+20 ~ +60°C
Ambient temperature	0 ~ +35°C
Water pressure	0.1 ~ 0.3MPa

## Outdoor Unit

Outdoor unit model	DPO1H0080SD0B	DPO1H0100SD0B
Power supply	220-240V~ 50Hz	
Rated power input	4370W	
Rated current	19A	
Norminal capacity	Refer to the technical data	
Dimensions(W×H×D)[mm]	993×804×421	
Packing(W×H×D)[mm]	1022×835×480	
Fan motor	DC motor / Horizontal	
Compressor	DC inverter dual rotary	
Heat exchanger	Fin-coil	
<b>Refrigerant</b>		
Type	R32	
Quantity	1650g	
<b>Weight</b>		
Net weight	61.0kg	
Gross weight	64.5kg	
<b>Connections</b>		
Liquid side	Φ9.52	
Gas side	Φ15.9	
Drain connection	DN32	
Max. piping length	30m	
Max. differance in height	20m	
Refrigerant to be added	38g/m	
<b>Operation ambient temperature range</b>		
Heating mode	-25 ~ +35°C	
Cooling mode	-5 ~ +43°C	
Domestic hot water mode	-25 ~ +43°C	

# POLAR AIR TO WATER HEAT PUMP TECHNICAL DATA

Model name			DPO1H0080SD0B	DPO1H0100SD0B
Power supply		V/Ph/Hz	220-240/1/50	
Heating <sup>2</sup>	Capacity	kW	8	9.5
	Rated input	kW	1.60	1.98
	COP		5.00	4.80
Heating <sup>3</sup>	Capacity	kW	8	9.5
	Rated input	kW	2.11	2.6
	COP		3.80	3.65
Heating <sup>4</sup>	Capacity	kW	7.4	9
	Rated input	kW	2.38	3
	COP		3.11	3
Cooling <sup>5</sup>	Capacity	kW	8	9.5
	Rated input	kW	1.67	2.065
	EER		4.8	4.60
Cooling <sup>6</sup>	Capacity	kW	7	8
	Rated input	kW	2.14	2.53
	EER		3.27	3.16
SCOP <sup>7</sup>	LWT at 35°C		4.7	4.6
	LWT at 55°C		3.25	3.35
SEER	LWT at 7°C		4.5	4.57
	LWT at 18°C		7.28	7.21
Seasonal space heating energy efficiency class <sup>7</sup>	LWT at 35°C		A+++	A+++
	LWT at 55°C		A++	A++
MOP(Maximum overcurrent protection)		A	19	19
MCA( Minimum circuit amps)		A	16	17
Compressor	Type		Twin rotary DC inverter	
Outdoor fan	Motor type		Brushless DC motor	
	Number of fans		1	
Air side heat exchanger	Type		Finned tube	
Refrigerant(R32)	Factory charge	kg	1.65	
Throttle type			Electronic expansion valve	
Piping connections	Type		Flare	
	Liquid Dia.(OD)	mm	Φ9.52	
	Gas Dia.(OD)	mm	Φ15.9	
	Min. pipe length	m	2	
	Max. pipe length	m	30	
Installation height	Outdoor unit above	m	20	

Installation height difference	Outdoor unit below	m	20	20
Sound power level <sup>8</sup>		dB	59	59
Sound pressure level <sup>9</sup>		dB	45	45
Net dimensions (W×H×D)		mm	910×805×360	
Packed dimensions (W×H×D)		mm	1030×860×475	
Net/Gross weight		kg	65/75	
Operating temperature range	Cooling	°C	-5 to 43	
	Heating	°C	-25 to 35	
	DHW	°C	-25 to 43	

Note: 1.Relevant EU standards and legislation: EN14511; EN14825; EN50564; EN12102; (EU) No 811:2013; (EU) No 813:2013; OJ 2014/C 207/02:2014.

2.Outdoor air temperature 2°C DB, 85% R.H.; EWT 30°C, LWT 35°C.

3.Outdoor air temperature 2°C DB, 85% R.H.; EWT 40°C, LWT 45°C.

4.Outdoor air temperature 2°C DB, 85% R.H.; EWT 47°C, LWT 55°C.

5.Outdoor air temperature 25°C DB; EWT 23°C, LWT 18°C.

6.Outdoor air temperature 5°C DB; EWT 12°C, LWT 7°C.

7.Seasonal space heating energy efficiency class tested in average climate conditions.

8.Test standard:EN12102- 1

9.Sound pressure level is the maximum value tested under the two conditions of Notes2 and Notes5.

Model name			DPIEH0080SD0B	DPIEH0100SD0B	
Function			Heating and cooling		
Setting water temperature range	Cooling	°C	5 to 25		
	Heating	°C	25 to 65		
	DHW ( tank )	°C	30 to 60		
Power supply		V/Ph/Hz	220-240/1/50		
Sound power level <sup>1</sup>		dB	42	42	
Sound pressure level(1m) <sup>2</sup>		dB	30	32	
Dimension (W×H×D)		mm	420×790×270	420×790×270	
Packing (W×H×D)		mm	525×1050×360	525×1050×360	
Net/gross weight		kg	37/43	37/43	
Water circuit	Piping connections	inch	R1"	R1"	
	Safety valve set pressure	Mpa	0.3	0.3	
	Drainage pipe connection	mm	Φ25	Φ25	
	Expansion tank	Volume	L	8	8
		Max. water pressure	MPa	0.3	0.3
		Pre-pressure	Mpa	0.1	0.1
	Water side Type	\	Plate type	Plate type	
water pump head	m	9	9		
Refrigerant circuit	Liquid Dia. (OD)	mm	Φ9.52	Φ9.52	
	Gas Dia. (OD)	mm	Φ15.9	Φ15.9	

Note:1.Test standard: EN12102- 1

2. Sound pressure level is the maximum value tested under the two conditions of Note3 and Note4 for different combination between

3. Outdoor air temperature 7°C DB, 85% R.H.; EWT 30°C, LWT 35°C.

4. Outdoor air temperature 35°C DB; EWT 23°C, LWT 18°C.



